

Remarks

Claims 1-19 are pending in the application. Claims 1-19 have been rejected. By this Amendment, no claims have been amended, the specification has been amended, and no new matter has been added. Favorable reconsideration of the claims in view of the amendment to the specification is respectfully requested.

Specification Amendments

By this amendment, a claim of priority to International Application PCT/ES2001/000462 (“the International Application”) has been added to the specification. The International Application has an international filing date of November 27, 2001.

Concurrently with the filing of this paper, Applicants have filed with the Petitions Office a Petition To Claim Benefits Under 35 U.S.C. §§ 120 and 365(c) Of A Prior Copending International Application Designating The United States Of America Pursuant to 37 C.F.R. § 1.78(a)(3). Applicants have also tendered the fee specified by 37 C.F.R. § 1.17(t). Accordingly, Applicants submit that the application should be treated as though it had been filed on November 27, 2001 and any prior art considered by the Examiner should be dated prior to November 27, 2001.

Response To Examiner’s Rejection Under 35 U.S.C. § 103 As Being Unpatentable Over Piñas In View Of Turner And Further In View Of Tani

Claims 1-19 were rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 6,879,057 to Piñas (“the ‘057 patent”) in view of U.S. Patent No. 6,646,845 to Turner (“the ‘845 patent”) and further in view of U.S. Publication 2004/0124703 to Tani (“the ‘703 application”). Applicants respectfully traverse this rejection.

The Examiner combines the '703 application with the '057 and '845 patents to reject Applicants' claims 1-19 as obvious. However, the '703 application was filed in the United States on October 14, 2003 and claims priority to three Japanese patent applications, the earliest of which was filed on October 15, 2002. Even assuming, without conceding, that the '703 application is entitled to the earliest application date of October 15, 2002, that date is subsequent to Applicants' effective filing date of November 27, 2001. Accordingly, the '703 application is not prior art to Applicants' application and cannot be used to support a rejection of the application.

To establish a *prima facie* case of obviousness under 35 U.S.C. § 103(a), the prior art references, when combined, must teach or suggest all of the limitations of the claim or claims rejected. MPEP § 2143. The '057 and '845 patents, when combined, do not disclose all of the limitations of claims 1-19. Independent claim 1 reads as follows, with the claim elements relevant to this discussion shown in bold:

A system for protection against short-circuits in electric power distribution architectures at two substantially different voltage levels, comprising:

at least a first battery B1 at a first voltage level, and a second battery B2 at second, substantially higher voltage level, both said batteries being provided with an automatic disconnection device SDB providing a differentiated electric power supply for respective network sectors;

said network sectors having power distribution units (10), (20), (30) directing power to loads (12), (22), (23), (32), (33), **each one of said power distribution units (10), (20), (30) being controlled by a corresponding microcontroller (10a), (20a), (30a)**, said at least first battery B1 and sectors that it supplies being fed in turn from said second battery B2 through a converter DC/DC;

said battery B2 being connected to a voltage generator;
characterised in that said first battery B1, at a lower voltage level, having an associated module SMM microcontroller monitoring the voltage and current at the posts of said battery B1 and sensing an operating state of said converter DC/DC, **said module SMM microcontroller of battery B1 being connected through a port and a**

communications network N with each one of said microcontrollers (10a), (20a), (30a) of said power distribution units (10), (20), (30) of said loads (12), (22), (23), (32), (33),
allowing in a short-circuit situation being sensed by said module SMM microcontroller, according to detection of a predetermined state of said converter DC/DC, followed by predetermined, sensed voltage and current values, **informing each of said microcontrollers (10a), (20a), (30a) of said power distribution units (10), (20), (30)** allowing activation of said automatic disconnection device SDB.

Independent claim 11 reads as follows, with the portions relevant to this discussion shown in bold:

A method for protection against short-circuits in electric power distribution architectures having two substantially different voltage levels, comprising:

at least a first battery B1 at a first voltage level and a second battery B2 at a second, substantially higher voltage level, both said batteries being provided with an automatic disconnection device SDB, providing a differentiated supply of electric power to respective network sectors through power distribution units (10), (20), (30) to loads (12), (22), (23), (32), (33), **each one of said power distribution units (10), (20), (30) being controlled by a corresponding microcontroller (10a), (20a), (30a);**

said at least first battery B1 and network sectors it supplies capable of being fed in turn from the second battery B2 through a converter DC/DC;

said battery B2 being connected to a voltage generator;
said method characterised as performing permanent monitoring of at least the voltage and current at the posts of said battery B1, and of the state of the converter DC/D; and

further characterized in that when said monitored voltage and current values exceed a predetermined threshold, **each one of the microcontrollers (10a, 20a, 30a) of said power distribution units (10, 20, 30), is signalled through a communications network N** to perform a short-circuit protection power interruptions.

As the Examiner admitted on page 7 of the February 22, 2007 Office Action, “[the ‘057 patent] does not expressly disclose [that] the electric power distribution architecture

comprises . . . microcontrollers contained within the power distribution units.” The Examiner relied on the ‘703 application as disclosing “microcontrollers contained within the power distribution units” because such microcontrollers are missing from the combination of the ‘057 and ‘845 patents. Because the ‘703 application is not prior art to Applicants’ application, the Examiner cannot rely on the ‘703 application to sustain this rejection. Without the ‘703 application, the Examiner cannot establish a *prima facie* case of obviousness under 35 U.S.C. § 103(a). Applicants contend that this rejection of independent claims 1 and 11 has been overcome.

Dependent claims 2-10 depend, either directly or indirectly, from independent claim 1. Dependent claims 12-19 depend, either directly or indirectly, from independent claim 11. Dependent claims 2-10 and 12-19 necessarily include each and every limitation of the independent claims from which they depend. Accordingly, for at least the same reasons that independent claims 1 and 11 are not obvious over the combination of the ‘057 and ‘845 patents, dependent claims 2-10 and 12-19 are also not obvious. Applicants contend that this rejection of dependent claims 2-10 and 12-19 have been overcome.

Accordingly, Applicants respectfully request that the Examiner withdraw this rejection and allow claims 1-19 to issue.

Applicants submit a genuine effort to respond to the Examiner's rejections in advancing the prosecution of this case. Applicants believe that all formal and substantive requirements for patentability have been met and that this case is in condition for allowance which is respectfully requested.

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Date: July 18, 2007

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